



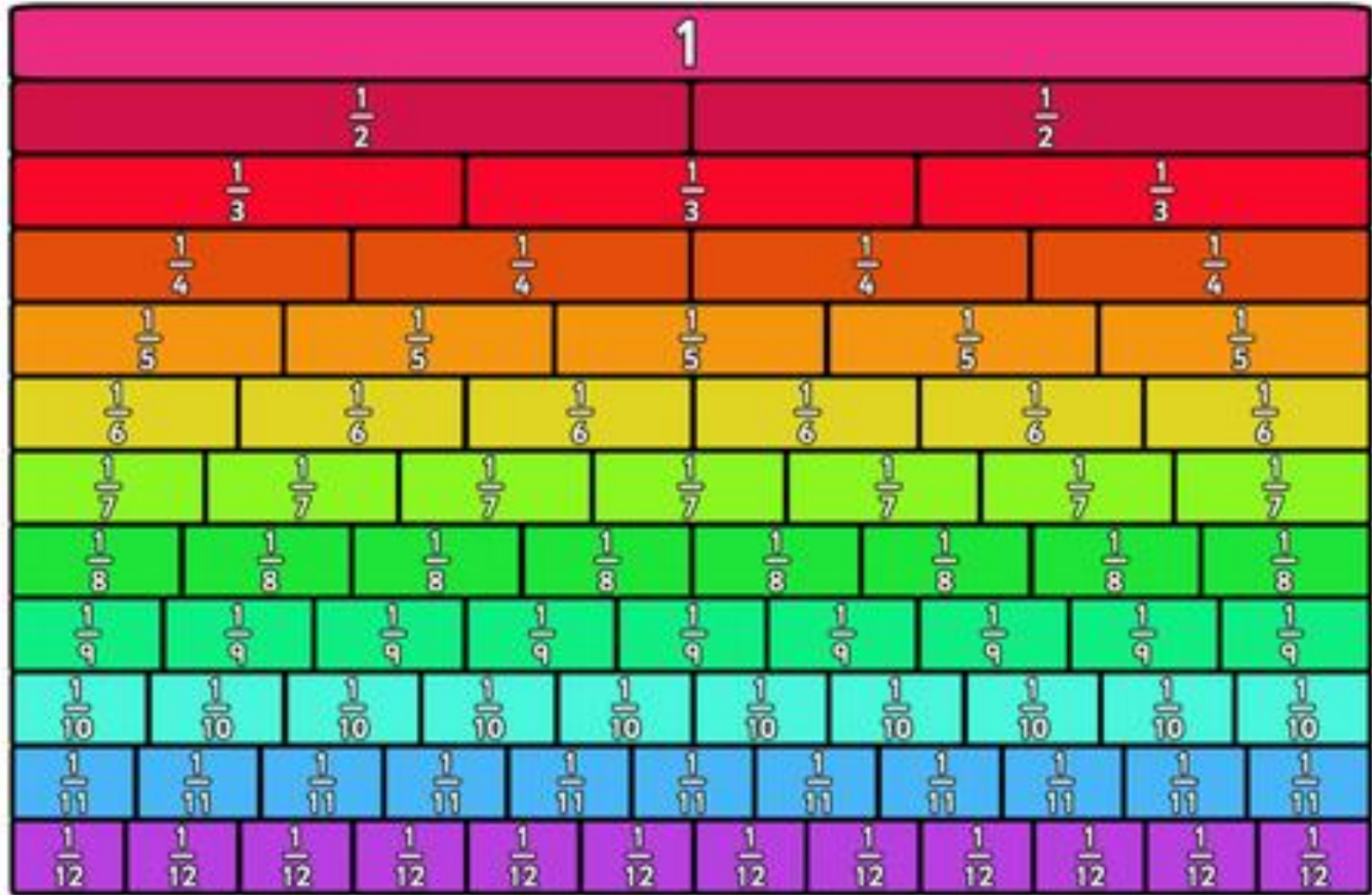
### Fractions – dividing to make fractions, improper and mixed, equivalent, comparing and ordering

NC Link	<p>Recognise mixed numbers and improper fractions and convert from one form to the other.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>Compare and order fractions whose denominators are all multiples of the same number.</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p>																				
Important Vocabulary	Proper fractions, improper fractions, mixed numbers, half, quarter, fifth, two fifths, four fifths, thirds, quarters, numerator, denominator, equivalent fractions																				
Key facts to memorise	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <h3 style="color: red;">Fractions</h3> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"><math>1</math> <i>one whole</i></td> <td style="text-align: center; padding: 5px;"><math>\frac{1}{6}</math> <i>sixth</i></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><math>\frac{1}{2}</math> <i>half</i></td> <td style="text-align: center; padding: 5px;"><math>\frac{1}{7}</math> <i>seventh</i></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><math>\frac{1}{3}</math> <i>third</i></td> <td style="text-align: center; padding: 5px;"><math>\frac{1}{8}</math> <i>eighth</i></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><math>\frac{1}{4}</math> <i>quarter</i></td> <td style="text-align: center; padding: 5px;"><math>\frac{1}{9}</math> <i>ninth</i></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><math>\frac{1}{5}</math> <i>fifth</i></td> <td style="text-align: center; padding: 5px;"><math>\frac{1}{10}</math> <i>tenth</i></td> </tr> </table> </div> <div style="width: 50%;"> <p style="text-align: center;"><u>Equivalent Fractions:</u></p> <table style="width: 100%; text-align: center;"> <tr> <td><math>\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{9}{18} = \frac{10}{20}</math></td> <td><math>\frac{1}{6} = \frac{2}{12} = \frac{3}{18} = \frac{9}{54} = \frac{10}{60}</math></td> </tr> <tr> <td><math>\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \frac{9}{27} = \frac{10}{30}</math></td> <td><math>\frac{1}{7} = \frac{2}{14} = \frac{3}{21} = \frac{9}{63} = \frac{10}{70}</math></td> </tr> <tr> <td><math>\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{9}{36} = \frac{10}{40}</math></td> <td><math>\frac{1}{8} = \frac{2}{16} = \frac{3}{24} = \frac{9}{72} = \frac{10}{80}</math></td> </tr> <tr> <td><math>\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{9}{45} = \frac{10}{50}</math></td> <td><math>\frac{1}{9} = \frac{2}{18} = \frac{3}{27} = \frac{9}{81} = \frac{10}{90}</math></td> </tr> <tr> <td></td> <td><math>\frac{1}{10} = \frac{2}{20} = \frac{3}{30} = \frac{9}{90} = \frac{10}{100}</math></td> </tr> </table> </div> </div>	$1$ <i>one whole</i>	$\frac{1}{6}$ <i>sixth</i>	$\frac{1}{2}$ <i>half</i>	$\frac{1}{7}$ <i>seventh</i>	$\frac{1}{3}$ <i>third</i>	$\frac{1}{8}$ <i>eighth</i>	$\frac{1}{4}$ <i>quarter</i>	$\frac{1}{9}$ <i>ninth</i>	$\frac{1}{5}$ <i>fifth</i>	$\frac{1}{10}$ <i>tenth</i>	$\frac{1}{2} = \frac{2}{4} = \frac{3}{6} = \frac{9}{18} = \frac{10}{20}$	$\frac{1}{6} = \frac{2}{12} = \frac{3}{18} = \frac{9}{54} = \frac{10}{60}$	$\frac{1}{3} = \frac{2}{6} = \frac{3}{9} = \frac{9}{27} = \frac{10}{30}$	$\frac{1}{7} = \frac{2}{14} = \frac{3}{21} = \frac{9}{63} = \frac{10}{70}$	$\frac{1}{4} = \frac{2}{8} = \frac{3}{12} = \frac{9}{36} = \frac{10}{40}$	$\frac{1}{8} = \frac{2}{16} = \frac{3}{24} = \frac{9}{72} = \frac{10}{80}$	$\frac{1}{5} = \frac{2}{10} = \frac{3}{15} = \frac{9}{45} = \frac{10}{50}$	$\frac{1}{9} = \frac{2}{18} = \frac{3}{27} = \frac{9}{81} = \frac{10}{90}$		$\frac{1}{10} = \frac{2}{20} = \frac{3}{30} = \frac{9}{90} = \frac{10}{100}$
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Key facts to memorise

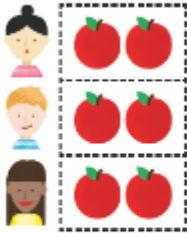
# Fractions Wall





Strategies

1 What if there are 6 apples?

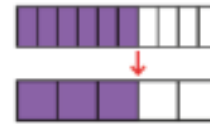


Each friend gets 2 apples.

6 apples shared equally among 3 friends.

$$6 \div 3 = \frac{6}{3} = 2$$

$$\frac{6}{10} = \frac{\square}{5}$$



Write  $\frac{6}{10}$  in its simplest form.



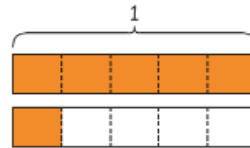
Let's Learn

This is an improper fraction.

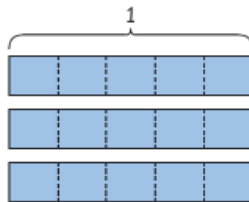
1  $1\frac{1}{5} = \frac{\square}{5}$

1 = 5 fifths

$\frac{1}{5} = 1$  fifth



2  $3 = \frac{\square}{5}$



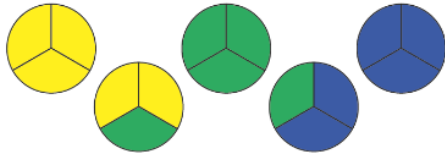
1 = 5 fifths

3 =  $\square$  fifths



3 What if there are 5 apples?

Method 1



5 apples shared equally among 3 friends.

$$5 \div 3 = \frac{5}{3}$$

$\frac{5}{3}$  is an improper fraction.

$$5 \div 3 = 1\frac{2}{3}$$

$1\frac{2}{3}$  is a mixed number.

Each friend gets  $\frac{5}{3}$  of an apple which is an apple and  $\frac{2}{3}$  of an apple.



Method 2



3 apples shared equally among 3 friends.

$$3 \div 3 = 1$$



The remaining 2 apples are shared equally among 3 friends.

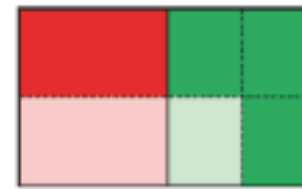
$$2 \div 3 = \frac{2}{3}$$

$$5 \div 3 = 1\frac{2}{3}$$



1

3 Compare  $\frac{1}{4}$  and  $\frac{3}{8}$ .



$\frac{1}{4}$  is  $\frac{1}{2}$  of half.

$\frac{3}{8}$  is more than  $\frac{1}{2}$  of half.



$$\frac{1}{4} < \frac{3}{8}$$

### Decimals

NC Link

Read and write decimal numbers as fractions.  
 Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.  
 Read, write, order and compare numbers with up to three decimal places.



Important Vocabulary

Decimals, hundreds, tens, ones, tenths, hundredths, thousandths, decimal places,

Key facts to memorise

**Hundreds** **Tens** **Ones** • **Tenths** **Hundredths** **Thousandths**  
 $\frac{1}{10}$   $\frac{1}{100}$   $\frac{1}{1000}$

The numbers get smaller as we move from left to right

Hundreds	Tens	Ones	•	Tenths	Hundredths	Thousandths	End Number
	4	3	.	0	1		43.01
2	5	3	.	1	4		253.14
		8	.	4	8	7	8.487

Strategies

**1** stands for .  
 10 of make 1.  
 stands for 1 tenth.

$\frac{1}{10}$

**2** stands for .  
 10 of make .  
 100 of make 1.  
 stands for 1 hundredth.

$\frac{1}{100}$       0.01

**3** stands for .  
 10 of make .  
 1000 of make 1.  
 stands for 1 thousandth.

$\frac{1}{1000}$       0.001

**2** Write each fraction as a decimal.

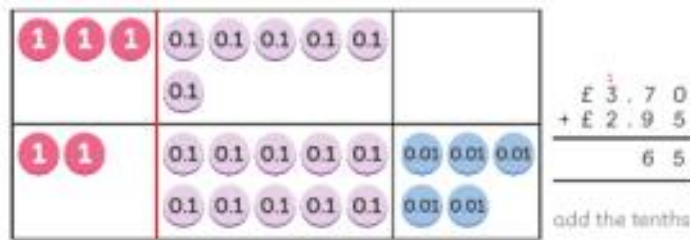
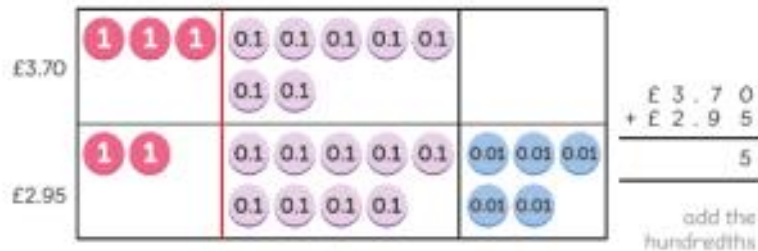
$\frac{7}{10} = 7 \text{ tenths} = 0.7$

$\frac{3}{5} = \frac{6}{10} = 6 \text{ tenths} = 0.6$

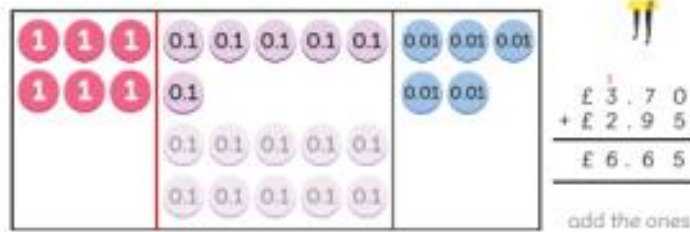
$\frac{17}{25} = \frac{34}{50} = \frac{68}{100} = 68 \text{ hundredths} = 0.68$

$\frac{13}{20} = \frac{65}{100} = 65 \text{ hundredths}$

1 picks £3.70 and £2.95 and finds the sum.

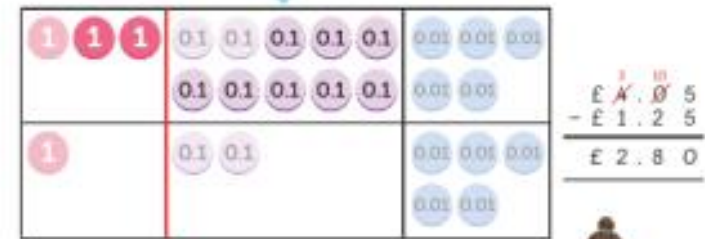
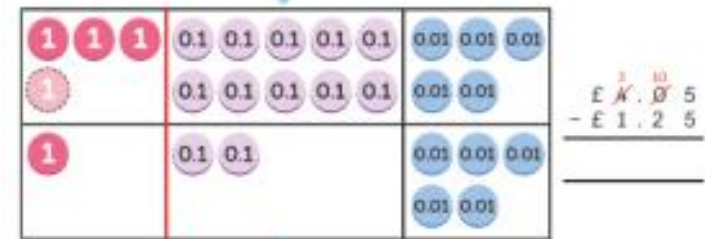
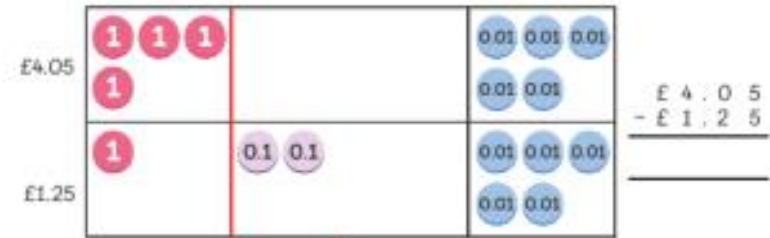


7 tenths + 9 tenths = 16 tenths  
16 tenths = 1 one 6 tenths



Together they cost £6.65.

2 picks £4.05 and £1.25 and finds the difference.



The price difference is £2.80.

